MASTER FORCE®

20V Lithium-Ion Impact Wrench

241-0415

OPERATOR'S MANUAL

⚠ CAUTION: To Reduce The Risk Of Injury, User Must Read And Understand Operator's Manual. Save These Instructions For Future Reference.

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SAFETY SYMBOLS

Some of these following symbols may be used on this tool. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and more safely.

Symbol	Name	Designation / Explanation
V	Volts	Voltage
A	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watts	Power
∿	Alternating current	Type of current
⎓	Direct current	Type of characteristic of current
n_o	No-load speed	Rotational speed at no load
lbs	Pounds	Weight
⧈	Class II construction	Double insulated construction
.../min	Per minute	Revolutions, strokes, surface speed orbits, etc., per minute
	Wear safety goggles	**⚠ WARNING: The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, always wear safety goggles or safety glasses with side shields and a full-face shield when needed. We recommend a Wide Vision Safety Mask for use over eye-glasses or standard safety glasses with side shields. Always use eye protection which is marked to comply with ANSI Z87.1.**

⚠ WARNING: To ensure safety and reliability, all repairs should be performed by a qualified service technician.

SAFETY INSTRUCTIONS

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols and the explanations with them deserve your careful attention and understanding. The symbol warnings do not, by themselves, eliminate any danger. The instructions and warnings they give are no substitutes for proper accident prevention measures.

⚠ WARNING: Be sure to read and understand all safety instructions in this manual, including all safety alert symbols such as "DANGER," "WARNING," and "CAUTION" before using this auto-hammer . Failure to following all instructions listed below may result in electric shock, fire, and/or serious personal injury.

SYMBOL MEANING

SAFETY ALERT SYMBOL: Indicates DANGER, WARNING, OR CAUTION. May be used in conjunction with other symbols or pictographs.

⚠ DANGER: Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.

⚠ WARNING: Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.

⚠ CAUTION: Indicates a potentially hazardous situation, which, if not avoided, could result in minor or moderate injury.

NOTICE: (Without Safety Alert Symbol) Indicates a situation that may result in property damage.

SAVE THESE INSTRUCTIONS!

SAFETY INSTRUCTIONS

⚠ WARNING: Read all safety warnings and instructions!

Failure to follow the warnings and instructions may result in electric shock, fire and / or serious injury. Save all warnings and instructions for future reference.

The term power tool in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

⚠ WARNING: Risk of fire and electric shock. Dry location use only. Do not expose to rain. Risk of injury.

WORK AREA SAFETY

1. **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

ELECTRICAL SAFETY

1. **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
2. **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
3. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
4. **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep the cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
5. **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
6. **If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply.** Use of a GFCI reduces the risk of electric shock.

SAFETY INSTRUCTIONS

PERSONAL SAFETY

1. **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use the tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
2. **Use personal protective equipment.** Always wear eye protection. Protective equipment such as a dust mask, non-skid safety shoes, hard hat, or hearing protection, used for appropriate conditions, will reduce personal injuries.
3. **Prevent unintentional starting.** Ensure that the switch is in the off-position before connecting to power source and / or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.
4. **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
5. **Do not overreach.** Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
6. **Dress properly.** Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
7. **If devices are provided for the connection of dust extraction and collection facilities, ensure that these are connected and properly used.** Use of these devices can reduce dust-related hazards.

USE AND CARE OF THE POWER TOOLS

1. **Do not force the power tool.** Use the correct power tool for your application. The correct power tool will do the job better and more safely at the rate for which it was designed.
2. **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
3. **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
4. **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
5. **Maintain power tools.** Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
6. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
7. **Use the power tool, accessories, tool bits etc., in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

SAFETY INSTRUCTIONS

BATTERY TOOL USE AND CARE

1. **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
2. **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
3. **When the battery pack is not in use, keep it away from other metal objects, such as paper clips, coins, keys, nails, screws or other small metal objects that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
4. **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water.** If liquid contacts eyes, also seek medical help. Liquid ejected from the battery may cause irritation or burns.

SERVICE

1. **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

SPECIFIC SAFETY RULES FOR CORDLESS IMPACT WRENCH

1. **Use battery only with charger listed.**

Battery pack	Charger
252-8032 252-8024 252-8028 252-8033 252-8029	252-8036 252-8037

2. **Hold power tools by their insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring.** Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.
3. **Use clamps or other practical way to support and secure the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
4. **Do not drill, fasten or break into existing walls or other blind areas where electrical wiring may exist.** If this situation is unavoidable, disconnect all fuses or circuit breakers feeding the worksite.
5. **Always wear safety goggles or eye protection when using this tool.**
6. **Bit, sockets and tools get hot during operation.** Wear gloves when touching them after use.
7. **Wear ear protectors when using the tool for extended periods.** Prolonged exposure to high intensity noise can cause hearing loss.
8. **Use thick cushioned gloves and limit the exposure time by taking frequent rest periods.** Vibration caused by hammer-drill action may be harmful to your hands and arms.
9. **Secure the material being fastened.** Never hold it in your hand or across your legs. Unstable support can cause loss of control and injury.
10. **Avoid accidental starting.** Be sure that the forward/center-lock/reverse switch is in the off position before inserting the battery pack. Carrying appliances with your finger on the switch or inserting the battery pack into an appliance with the switch on invites accidents.
11. **Remove the battery pack before changing accessories.** Accidental starting may occur because battery appliances with a battery inserted are in the operative condition.

12. **Be prepared for a reaction torque when "seating" or removing a fastener.** The tool housing may tend to twist in the opposite direction of bit rotation when "seating" or removing a fastener, depending on the torque setting of the tool.

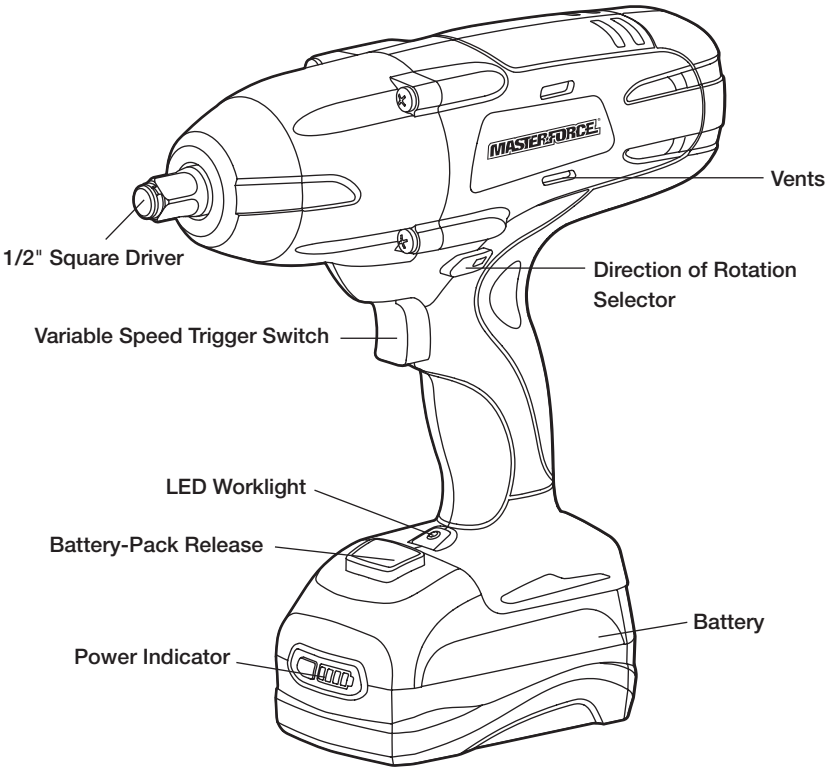
13. **Do not use dull or damaged impact sockets and accessories.** When installing an accessory, insert the impact socket well onto the output drive. Be sure that the output drive has locked onto the socket correctly.

14. **Do not run the tool while carrying it at your side.** A spinning bit could become entangled with clothing and injury may result.

15. **Place the tool onto the fastener only when the tool is switched off.** Rotating wrench tools can slide off the fastener.

16. **Be careful when driving long screws.** There is a risk of wrench sliding off the fastener head, depending on the type of socket or bit used. First test the run-down of a fastener and pay attention during the screw driving process to ensure you do not injure yourself if the tool bit or socket slides off of the fastener.

OVERVIEW



SPECIFICATIONS

Motor	20 Volt DC
Switch	VSR (Variable Speed Reversible)
No Load Speed	0 - 1900 RPM
Impacts per minute	0 - 2100 BPM
Max Torque	300 ft. lbs. (with 252-8033 battery pack)
Capacity (Standard bolt)	M14- M20 (9/16"- 3/4")
Capacity (High-tensile bolt)	M12 - M16 (1/2"- 5/8")
Weight (with 252-8032 battery)	7lb (3.22kg)
Battery Type	2P Lithium-Ion
Battery Voltage	20 Volt DC
Charger Input	120-volt, 60Hz AC only

ASSEMBLY

⚠ WARNING: If any part is broken or missing, do not attempt to plug in the power cord or operate the Impact wrench until the broken or missing part is replaced. Failure to do so could result in possible serious injury.

⚠ WARNING: Do not attempt to modify this impact wrench or create accessories not recommended for use with this tool. Any such alteration or modification is misuse and could result in a hazardous condition leading to possibly serious injury. To prevent accidental starting that could cause serious personal injury, always remove the battery pack from the wrench when assembling parts.

UNPACKING

1. This product has been shipped completely assembled.
2. Carefully remove the tool and any accessories from the box. Make sure that all items listed in the packing list are included.
3. Inspect the tool carefully to make sure no breakage or damage occurred during shipping.
4. Do not discard the packing material until you have carefully inspected and satisfactorily operated the tool.

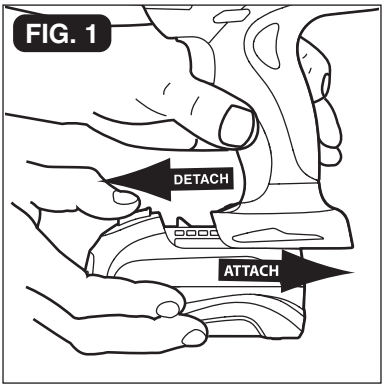
PACKING LIST

Impact wrench and Operator's manual

OPERATION

TO ATTACH BATTERY PACK (FIG. 1)

1. Lock the trigger switch on the impact wrench by placing the direction of rotation (forward/center-lock/reverse) selector in center position.
2. Align the raised rib on the battery pack with the grooves of the wrench, and then attach the battery pack to the wrench.



NOTICE: Make sure that the latch on the battery pack snaps into place and that the battery pack is secured to the tool before beginning operation.

TO DETACH BATTERY PACK (FIG. 1)

1. Lock the trigger switch on the impact wrench by placing the direction of rotation (forward/ center lock/reverse) selector in the center position.
2. Depress the battery release buttons located on the both sides of the battery pack to release the battery pack.
3. Pull the battery pack out and remove it from the tool.

⚠ WARNING: Battery tools are always in operating condition. Therefore, the direction-of-rotation selector should Battery tools are always in operating condition. Therefore, the direction-of-rotation selector should always be locked when not in use or carrying at your side.

⚠ CAUTION: When placing the battery pack on the tool, be sure that the raised rib on battery pack aligns with the groove inside the wrench and that the latches snap into place properly. Improper attachment of the battery pack can cause damage to internal components.

OPERATION

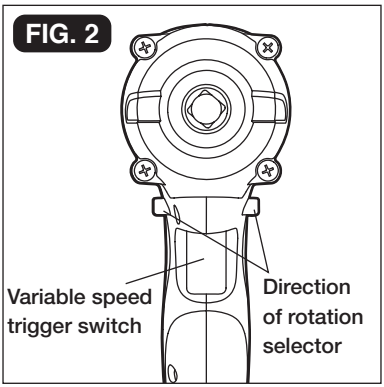
TRIGGER SWITCH (FIG. 2)

To turn the Impact Wrench ON, depress the trigger switch. To turn it OFF, release the trigger switch.

VARIABLE SPEED (FIG. 2)

The variable-speed trigger switch delivers higher speed with increased trigger pressure and lower speed with decreased trigger pressure.

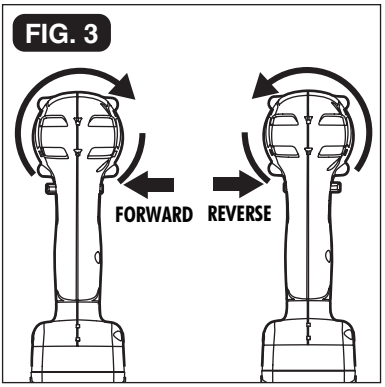
FIG. 2



DIRECTION-OF-ROTATION SELECTOR (FORWARD/ CENTER-LOCK/REVERSE) (FIG. 3)

The direction of rotation is reversible and is controlled by a selector located above the trigger switch. With the Impact Wrench held in normal operating position:
Position the direction-of-rotation selector to the right of the tool for reverse rotation. Setting the switch in the OFF (center-lock) position helps reduce the possibility of accidental starting when not in use.

FIG. 3

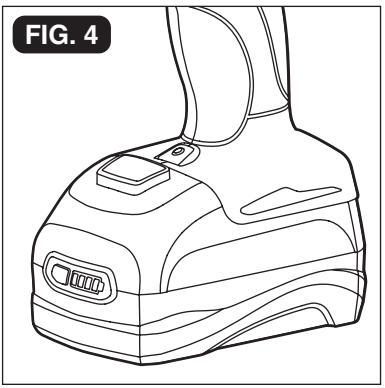


NOTICE: To prevent gear damage, always allow the Impact Wrench to come to a complete stop before changing the direction of rotation.
NOTICE: The Impact Wrench will not run unless the direction of rotation selector is engaged fully to the left or right.

LED WORKLIGHT (FIG. 4)

The LED worklight, located on the base of the Impact Wrench, will illuminate when the trigger switch is depressed. This provides additional light on the surface of the workpiece for operation in lower-light areas. The LED worklight will turn off when the trigger switch is released.

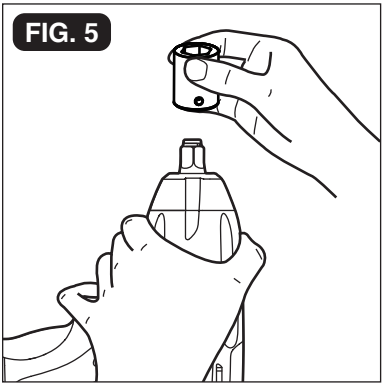
FIG. 4



OPERATION

INSTALLING AND REMOVING SOCKET (FIG. 5)

1. Lock the trigger switch by placing the direction-of-rotation Selector in the OFF (center) position.
2. To install a 1/2" socket, simply push it completely onto the output drive. To remove, pull it off the output drive.



⚠ WARNING: Only use sockets designed for impact wrenches. Sockets not designed for impact wrenches could break and result in user injury. Inspect sockets prior to use to ensure that they have no cracks or other visible damage.

TIGHTENING AND LOOSENING BOLTS

A hex socket matching the bolt or nut must first be selected. Then mount the socket on the output drive, and grip the nut to be tightened with the hex socket. Hold the wrench in line with the bolt; press the trigger switch to impact the nut for several seconds. If the nut is only loosely fitted to the bolt, the bolt may turn with nut, therefore mistaking proper tightening. In this case, stop impact on the nut and hold the bolt head with a wrench before restarting impact, or manually tighten the bolt and nut to prevent them slipping.

TIGHTENING TORQUE

The tightening torque depends on the duration of the impacting/tightening action. The greatest tightening torque is achieved after approximately 3-5 seconds of impacting /tightening action.

The torque build-up depends on the following factors:

1. Hardness of the bolts/nuts.
2. Type of washer (disk washer, spring washer, seal).
3. Hardness of the material to be joined.
4. Lubricating effect at the surface of the junction.

For example:

A relatively short interval of impacting/ tightening action is required when joining metal to metal with a disk washer.

A moderate interval of impacting/tightening action is required when joining metal to metal where a spring-ring washer, disk-spring washer, stud bolt, or bolt/ nut with conical seats are used.

A longer interval of impacting/ tightening action is necessary to arrive at the maximum tightening torque when joining metal to wood or insulation material.

MAINTENANCE

⚠ WARNING: To avoid serious personal injury, always remove the battery pack from the tool when cleaning or performing any maintenance. Never disassemble the power source, battery pack or charger. Contact a qualified service technician for ALL repairs.

⚠ WARNING: Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, dust, oil, grease, etc.

⚠ WARNING: To reduce the risk of personal injury and damage, never immerse your tool, battery pack or charger in liquid or allow a liquid to flow inside them.

⚠ WARNING: When servicing, use only identical replacement parts. Use of any other parts may create a hazard or cause product damage. To ensure safety and reliability, all repairs should be performed by a qualified service technician.

TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
The impact wrench does not start or operate at full power with a fully charged battery pack	1. The battery pack contacts are not reliable	1. Clean the contacts on the battery pack
	2. The tool is damaged	2. Contact a qualified service technician

20-VOLT LITHIUM-ION IMPACT WRENCH

WARRANTY

90-DAY MONEY BACK GUARANTEE:

This MASTERFORCE® brand power tool carries our 90-DAY Money Back Guarantee. If you are not completely satisfied with your MASTERFORCE® brand power tool for any reason within ninety (90) days from the date of purchase, return the tool with your original receipt to any MENARDS® retail store, and we will provide you a refund – no questions asked.

3-YEAR LIMITED WARRANTY:

This MASTERFORCE® brand power tool carries our famous No Hassle 3-Year Limited Warranty to the original purchaser. If, during normal use, this MASTERFORCE® power tool breaks or fails due to a defect in material or workmanship within three (3) years from the date of original purchase, simply bring this tool with the original sales receipt back to your nearest MENARDS® retail store. At its discretion, MASTERFORCE® agrees to have the tool or any defective part(s) repaired or replaced with the same or similar MASTERFORCE® product or part free of charge, within the stated warranty period, when returned by the original purchaser with original sales receipt. Not withstanding the foregoing, this limited warranty does not cover any damage that has resulted from abuse or misuse of the Merchandise. This warranty: (1) excludes expendable parts including but not limited to blades, brushes, belts, bits, light bulbs, and/or batteries; (2) shall be void if this tool is used for commercial and/or rental purposes; and (3) does not cover any losses, injuries to persons/property or costs. This warranty does give you specific legal rights and you may have other rights, which vary from state to state. Be careful, tools are dangerous if improperly used or maintained. Seller's employees are not qualified to advise you on the use of this Merchandise. Any oral representation(s) made will not be binding on seller or its employees. The rights under this limited warranty are to the original purchaser of the Merchandise and may not be transferred to any subsequent owner. This limited warranty is in lieu of all warranties, expressed or implied including warranties or merchantability and fitness for a particular purpose. Seller shall not be liable for any special, incidental, or consequential damages. The sole exclusive remedy against the seller will be for the replacement of any defects as provided herein, as long as the seller is willing or able to replace this product or is willing to refund the purchase price as provided above. For insurance purposes, seller is not allowed to demonstrate any of these power tools for you.

For questions / comments, technical assistance or repair parts – Please Call Toll Free at: **1-866-917-4374**. (M-F 8am – 6pm)

SAVE YOUR RECEIPTS
THIS WARRANTY IS VOID WITHOUT THEM

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